

REMARKS

Applicant appreciates the Examiner's attention to the above referenced application. Reconsideration of the application is respectfully requested. Claim 10 received an objection. Claims 1-27 were rejected. Claims 1, 10, 11, and 20 have been amended. Claims 1-27 are now pending, of which claims 1, 11 and 20 are independent.

Claim objections

Claim 10 received an objection. Claim 10 has been amended and is believed to be in condition for allowance. Applicant respectfully requests that claim 10 be allowed to pass to issuance.

35 U.S.C. § 101 Rejection of the Claims

Claims 20-27 were rejected under 35 U.S.C. § 101 because the claimed invention was indicated to be directed to non-statutory subject-matter. Claim 20 has been amended to clarify that the machine-readable medium is a tangible machine-readable medium. Claims 20-27 are believed to be in condition for allowance, and Applicant respectfully requests that claims 20-27 be allowed to pass to issuance.

35 USC § 102 Rejection of the Claims

Claims 1, 2, 6, 10-12, 16, 20, 21, 25, and 27 were rejected under 35 USC § 102(e) as being anticipated by Dinechin et al. (U.S. Publication No. 2006/0026385 A1). Applicant respectfully traverses this rejection, which should be withdrawn for at least the reasons set forth herein. Amended independent claim 1 is repeated below:

1. A method for supporting virtual machines in a data processing system, the method comprising:

executing an emulation patch for a guest virtual machine (VM) of a processing system, the emulation patch including data to facilitate identification of a routine for emulating a guest instruction;

in response to execution of the emulation patch, transferring control from the guest VM to a virtual machine monitor (VMM) without saving contextual data that defines a system state for the guest VM; and

using the data from the emulation patch to find an emulation routine for the guest instruction.

Independent claims 11 and 20 contain substantially similar limitations.

The independent claims require, inter alia, “transferring control from the guest VM to a virtual machine monitor (VMM) *without saving contextual data that defines a system state for the guest VM.*” (Emphasis added). Saving a trap frame is described in the specification, page 3, lines 3-6, as follows: “To handle a fault triggered by an emulation patch, a conventional processing system saves and eventually restores the contextual data that defines or constitutes the system state for the guest VM. That contextual data may be called the trap frame.”

The Office Action cites Dinechin, paragraph 52, lines 12-17 and Fig. 15 as teaching “transferring control from the guest VM to a virtual machine monitor (VMM) without saving a trap frame.” However, Dinechin paragraph 6 describes that “the virtual-machine monitor physically aliases each virtual alias for a particular physical memory page by allocating a physical page for the virtual alias, copying the original contents of the physical memory page to the allocated physical page, or physical alias page, and subsequently patching each physical alias page appropriate to the physical address of the physical alias page.” Dinechin Figs. 17-24 describe maintaining a patched page table (PPT), a virtual-address-alias table (VAAT), and memory state to ensure proper transfer of control from the guest VM to the VMM.

Applicant believes that this copying of the original contents of the physical memory page to the allocated physical page constitutes saving contextual data that defines a system state for the guest VM or, in other words, saving a trap frame. Consequently, all limitations of independent claims 1, 11, and 20 are not taught by the cited reference. Applicant respectfully submits that independent claims 1, 11, and 20 are allowable and respectfully requests that claims 1-27 be allowed to pass to issuance.

35 USC § 103 Rejection of the Claims

Claims 3, 4, 13, 14, 22, and 23 were rejected under 35 U.S.C § 103(a) as being unpatentable over Dinechin et al. (U.S. Publication No. 2006/0026385 A1) in view of Gates (U.S. Patent No. 6,449,709). Applicant respectfully traverses this rejection, which should be withdrawn for at least the reasons set forth herein. Each of claims 3, 4, 13, 14, 22, and 23 depends from one of independent claims 1, 11, and 20, which have been shown to be allowable over the Dinechin reference. Gates does not remedy the failure of Dinechin to teach “transferring control from the guest VM to a virtual machine monitor (VMM) *without saving contextual data that defines a system state for the guest VM.*” (Emphasis added). For at least the

reasons set forth above, claims 3, 4, 13, 14, 22, and 23 are allowable, and Applicant respectfully requests that claims 3, 4, 13, 14, 22, and 23 be allowed to pass to issuance.

Claims 5, 7-9, 15, 17-19, 24 and 26 were rejected under 35 U.S.C § 103(a) as being unpatentable over Dinechin et al. (U.S. Publication No. 2006/0026385 A1) in view of Dinechin et al. (U.S. Publication No. 2006/0026387 A1, hereinafter “Dinechin2”). Applicant respectfully traverses this rejection, which should be withdrawn for at least the reasons set forth herein. Each of claims 5, 7-9, 15, 17-19, 24 and 26 depends from one of independent claims 1, 11, and 20, which have been shown to be allowable over the Dinechin reference. Dinechin2 does not remedy the failure of Dinechin to teach “transferring control from the guest VM to a virtual machine monitor (VMM) *without saving contextual data that defines a system state for the guest VM.*” (Emphasis added). For at least the reasons set forth above, claims 5, 7-9, 15, 17-19, 24 and 26 are allowable, and Applicant respectfully requests that claims 5, 7-9, 15, 17-19, 24 and 26 be allowed to pass to issuance.

CONCLUSION

Applicant respectfully requests reconsideration in view of the remarks and amendments set forth above. If the Examiner has any questions, the Examiner is encouraged to contact the undersigned at (512) 732-1303. Please charge any shortage of fees in connection with the filing of this paper, including extension of time fees, to Deposit Account 50-0221 and please credit any excess fees to such account.

Respectfully submitted,

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